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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,708	02/25/2002	Robert Gehin	N1305-021	5324
32905	7590	05/10/2004	EXAMINER	
JONDLE & ASSOCIATES P.C. 9085 EAST MINERAL CIRCLE SUITE 200 CENTENNIAL, CO 80112			GRUNBERG, ANNE MARIE	
			ART UNIT	PAPER NUMBER
			1661	

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/082,708	GEHIN, ROBERT	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anne Marie Grunberg	1661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/31/03</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

**The claims should be checked for grammatical errors. The last limitation in claims 18, 20, 22, 28 and 32 should be preceeded by an --and--. In claim 19, --a-- should be inserted into steps d) and e) before the recitation “ (further) ‘210104’-derived bean plant”. In claim 32, “part” should be changed to --parts--.**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 6, 8 and 17 and dependent claims 2-5, 7, 9-16 and 18-32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The invention employs the bean cultivar designated “210104”. Since the plants are essential to the claimed invention they must be obtainable by a repeatable method set forth in the specification or otherwise be known and readily available to the public. If the plants are not so obtainable or available, the requirements of 35 USC 112 may be

satisfied by a deposit of the plants. It is noted in the Deposit Information in the specification, that upon allowance, applicant will deposit 2500 seeds of the bean cultivar 210104 with the American Type Culture Collection. A deposit of 2500 seeds of the claimed embodiment is considered sufficient to ensure public availability. It is also noted that applicant states that access to a deposit will be available during the pendency of this application to persons determined by the Commissioner of Patents and Trademarks to be entitled thereto under 37 CFR 1.14 and 35 USC 122, and upon allowance of any claims, all restrictions on the availability to the public of the variety will be irrevocably removed. However, there is no indication in the specification as to whether the deposit will be made under the terms of the Budapest Treaty, nor have all of the requirements been stated that would satisfy the deposit requirement made herein.

If the deposit is made under the terms of the Budapest Treaty, then an affidavit or declaration by applicants, or a statement by an attorney of record over his or her signature and registration number, stating that the specific strain has been deposited under the Budapest Treaty and that the strain will be irrevocably and without restriction or condition released to the public upon the issuance of a patent, would satisfy the deposit requirement made herein.

If the deposit is not made under the Budapest Treaty, then in order to certify that the deposit meets the criteria set forth in 37 C.F.R. 1.801-1.809, applicants may provide assurance of compliance by an affidavit or declaration, or by a statement by an attorney of record over his or her signature and registration number, showing that

- (a) during the pendency of this application, access to the invention will be afforded to the Commissioner upon request;
- (b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;
- (c) the deposit will be maintained in a public depository for a period of 30 years or 5 years after the last request or for the effective life of the patent, whichever is longer;
- (d) a test of the viability of the biological material at the time of deposit (see 37 CFR 1.807); and,
- (e) the deposit will be replaced if it should ever become inviable.

Applicant is also reminded upon allowance of any claims to amend the specification in the deposit information to also include ATCC number and date of deposit. Claims 1, 6, 8 and 17 must be amended to include the ATCC Accession number.

### ***Written Description***

Claims 10-12, 14-16, 18-25 and 28-32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

Art Unit: 1661

invention. Claims that recite a seed or plant grown from such a seed, or a plant which may somehow be derived from such a plant or seed wherein the resulting plant is not specified and adequately described in the specification, or a method of breeding that uses such an undefined plant or a plant that has been transformed so that its genetic material contains one or more transgenes are rejected because the inventor was not in possession of the claimed invention at the time of filing. As such, all possible crosses, somaclonal variants, and all possible transformations of the instant plant are claimed, however all possible crosses and all possible transformations using the parent plant have not been adequately described in the specification. The specification only discloses the plants grown from the deposited seeds.

In analyzing whether the written description requirement is met for genus claims, it is first determined whether a representative number of species have been described by their complete structure. (It is not realistic to expect that the "complete structure" of a plant, or even a cell, could be described. Therefore the inquiry required by this portion of the written description guidelines is interpreted to be whether the phenotype of the claimed plant has been described.) In this case, the few disclosed embodiments are not representative of the enormous number of products claimed. The claims encompass every bean plant derived from the deposited seeds. Plants have many phenotype traits, which vary independently, so millions of possible phenotypes are possible and claimed. The specification discloses only the bean plant '210104' but not the heterozygous population claimed. Next, then, it is determined whether a representative number of species have been sufficiently described by other relevant

identifying characteristics. It is not possible to adequately describe the claimed products of all possible crosses with this plant. One skilled in the art would not have been able to predict all of the resulting phenotypes. The limited disclosure in the specification is not deemed sufficient to reasonably convey to one skilled in the art that Applicants were in possession of the huge genera recited in the claims at the time the application was filed. Thus it is concluded that the written description requirement is not satisfied for the claimed genera.

The art teaches that the genetic variation among individual progeny of a breeding cross allows for the identification of rare and valuable new genotypes. However these new genotypes are neither predictable nor incremental in value, but rather the result of manifested genetic variation combined with selection methods, environments and the actions of the breeder (Kevern, US Patent 5,850,009, column 4, lines 41-46).

This rejection could be overcome by limiting the claims to the deposited seeds, plants grown therefrom and their asexually propagated progeny. Methods claims need to be drawn to steps that employ described products; i.e. the deposited bean plant. Single gene conversions also need to be drawn to the described plant as well as the defined transgene. Herbicide resistance and insect resistance, for example, have been well characterized by the specification whereas increased methionine content is the only factor described for improved nutritional quality.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 1661

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 5, 6, 8, 17-22, 26, 28, 32 and dependent claims 2-4, 7, 9-16, 23-25, 27, 29-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant will need to amend claims 1, 6, 8 and 17 upon allowance to reflect the accession number.

Claim 5 is vague and indefinite in the recitation "or its parts" because it is not clear which plant the phrase is intended to modify. Thus the claim language fails to clearly set forth the metes and bounds of the claimed invention. Amendment of the claim to move ", or its parts" to line one after the first recitation of "plant" would obviate this rejection.

Claims 17-22 recite the limitation "-derived". It is not clear what constitutes characteristics that are derived from a particular plant. Does this mean that if a plant has even one gene in common with '210104' that the plant is derived from 210104? Does it include any plant in the breeding lineage of '210104', even if it were not to have any gene in common with '210104'? The terms pertaining to "-derived" are not defined in the specification and one of skill in the art would not know what the metes and bounds of the claims are.

It is unclear what is meant by "progeny" in claim 21 as tissue culture is commonly used to make asexual reproductions of a particular plant whereas "progeny" would



Art Unit: 1661

suggest sexual reproductions, or at the very least somaclonal variants. As a result, the metes and bounds of the claim can not be determined as it is unclear what the resulting product or the method of making the product is intended to be.

Claim 22 has an antecedent basis problem in the recitation "further '210104'-derived bean plant...produced by the method of claim 21". It is unclear what constitutes "further" derived.

Claims 18, 20, 22, 28 and 32 are vague and indefinite in the recitation "with a good plant adaptability". Adaptability in relation to what? The claims already cite adapted to the conditions of the Eastern United States. Paragraph 36 in the specification defines plant adaptability as performing well in different growing conditions and seasons. As a result, it would appear that the claims have a broader limitation followed by a narrower limitation thus making it unclear as to the metes and bounds of the claims.

Claim 26 is vague as it appears to be missing steps. The obtainment of the bean plant does not enable the preamble of the claim and it is unclear how a bean plant is thus developed.

***Claim Rejections - 35 USC § 102/103***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10-12, 14-16, 18, 20, 22, 28 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Thompson (PVP certificate on 'Hialeah').

The claims are drawn to a bean plant derived from '210104' having at least two traits in common with '210104'.

However, the claims do not state more than two characteristics of the resultant plant, and as a result, the claimed plants are indistinguishable from any bean plant having two traits in common with the invented plant, such as the prior art plants, despite their being made by an alternative process. See In re Thorpe, 227 USPQ 964,966 (Fed. Cir. 1985), which teaches that a product-by-process claim may be properly rejectable over prior art teaching the same product produced by a different process, if

Art Unit: 1661

the process of making the product fails to distinguish the two products. Thus, the claimed invention was clearly prima facie obvious as a whole to one of ordinary skill in the art, if not anticipated by Thompson.

This claim reads on bean genotypes *per se* that have any two of the specified traits. As a result, any genotype that has as much as two traits in common with the instant cultivar constitutes prior art.

Thompson describes a bean variety having smooth pods (page 2, third full paragraph, first paragraph of page 3, for example) and earliness (bottom of page 2, penultimate paragraph on page 3, for example).

#### ***Allowable Subject Matter***

Claims 1-8 are deemed free of the prior art, given the failure of the prior art to teach or suggest a bean plant having all of the physiological and morphological characteristics and exact genotype as the exemplified variety.

No claim is allowed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne Marie Grünberg whose telephone number is (571) 272-0975. The examiner can normally be reached from Monday through Thursday from 7:30 until 5:00, and every other Friday from 7:30 until 4:00.

Application/Control Number: 10/082,708  
Art Unit: 1661

Page 10

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Bruce Campell, can be reached at (571) 272-0974. The fax number for the unit is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

  
ANNE MARIE GRUNBERG  
PRIMARY EXAMINER